Prime Matter in Aristotle[1]

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Aristotle argues that every change has something which underlies it (eg 190 a 31- b 9). What underlies a change is the matter of that change (eg 1042 b 9-11). This has traditionally been taken to mean that, in every change, there is something which is first a part of the whole which precedes the change, and then a part of the whole which succeeds it; thus what underlies a change persists through it. When a substance alters in an accidental fashion the matter of the change is the substance itself, for that persists through the change. When the change involves the forming of a new substance from an old one, then the matter of the change is that which constitutes first the one substance then the other: thus if I turn an iron statue into cannonballs the iron is what underlies this change. Aristotle believes that the elements (air, fire, earth and water) can change into each other (eg 305 a 14-35). As there is no identifiable matter more primitive than the elements (305 a 14-35) there is a problem about what underlies such change. The traditional interpretation of Aristotle's treatment of this problem is that he posits a *prime matter*, a bare 'stuff', lacking all positive determinations, which is the matter of the elements and which makes elemental change possible. This prime matter is nothing but a potentiality which can exist only as actualized in some determinate matter – i.e. in one of the elements – and which is what persists when one contrariety is replaced by another and the identity of an element changes. I intend to defend the view that Aristotle believed in a prime matter of this sort.

This venerable theory has twice been attacked in recent years. First it was attacked by H. R. King (*Journal for the History of Ideas*, Vol. 17, 1956), and then by W. Charlton in his edition of books one and two of the *Physics* (Clarendon Aristotle Series, Clarendon Press, Oxford, 1970) where it merits a special appendix. King has been

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severely criticized by F. Solmsen (J.H.I. vol. 19, 1958) and A. R. Lacey (J. H. I. vol. 26, 1965), and I shall be concentrating mainly on Charlon's novel line of argument. However, what I say below does refute King's theory. For King and Charlton agree in the theory that they put up as the alternative to the traditional theory: their theory is that the elements are the most fundamental sort of matter. This alternative theory is the only one open to someone who rejects the traditional notion. It is agreed that Aristotle rejects conceptions of a matter more basic than the elements which make it either a type of body in its own right, or separable from the elements or purely geometrical (see section III below). Therefore if there is some matter more basic than the elements it must not be a type of body in its own right, nor purely geometrical and it must be inseparable from the elements. These conditions describe prime matter as traditionally conceived. If this conception is to be rejected there can be no matter more basic than the elements. I shall try to show that the view that elements are most basic is incompatible with the text, and that, therefore, those who reject prime matter have nothing to put in its place as the most fundamental form of matter.

The discussion principally involves four issues: (i) whether some part of what underlies change must remain through it; (ii) how to interpret certain passages in *De Gen et Corr.*, especially 329 a 24-35, (iii) whether the alternative theory, that the elements are the most basic form of matter, is consistent with the text (especially 329 a 24-35; (ii) and (iii) are closely connected): (iv) how to interpret *Metaphysics* Z.3.

I. *Charlton's grounds for denying that something remains in substantial change*

On p. 77 of his commentary Charlton argues as follows:

> "Aristotle does not say that anything remains, but only that something underlies, in the cases of coming into existence . . ."

In the appendix he explains his view further:

> "The underlying thing is the *terminus a quo* of a change under whatever description . . . hence Aristotle's insistence that there is always an underlying thing is no evidence that he thought there is always something which remains." (pp. 131-2)

Thus Charlton holds that what underlies (ὑποκεῖσθαι) a change is that

thing in which, or to which, the change occurs: in the case of substantial change this thing entirely passes away and is replaced by the generated substance; nothing remains (ὑπομένειν).

He considers two texts in support of this view that nothing of what underlies need remain. They are *De Gen* 319 b 21-31 and *Met.* H 1042 a 32 - b 3. I shall now consider his use of these passages.

(a) 319 b 21-31

Charlton continues the former of the above quotations:

"Aristotle says . . . according to *De Gen. et Cor.* I 319 b 21-31, if anything did remain in all cases, there would be no such thing as coming into existence, but only alteration."

This seems to me to be a misinterpretation of the passage. All Aristotle is saying is that if a substance turns into another substance possessing some properties in common with it, – e.g. if air turns into water, where both are transparent and cold:

"the second thing into which the first changes must not be a property of this persistent identical something. Otherwise the change will be an alteration."

i.e. the water must not be taken to be a property of the transparency or coldness, for then the change would be merely alteration in the mode of transparency or coldness. That this passage concerns the persistence of properties is explicitly stated at 319 b 21-2. Why should Charlton take a passage which says that persisting properties cannot be regarded as the substratum of a change and interpret it as an argument to the end that no prime matter persists? The answer must be that he regards the reason that Aristotle gives for not predicating the things that change of properties that persist – namely that it would make all such changes into alterations – as applying also to cases where prime matter is supposed to persist. Charlton is deriving from this passage the general principle that if something persists, and the things that change are predicated of the persistent thing, then the change is an alteration. As things are supposedly predicated of prime matter, if it persisted through all changes, all changes would be alterations.

But it is clear from the text that Aristotle would not regard as adequate the criterion of alteration embodied in this general principle. The criteria for distinguishing alteration and substantial change are given in the passage immediately prior to that to which Charlton refers.

"There is alteration when the substratum is perceptible and

persists, but changes in its own properties (319 b 10-2)"[2]
and:

> "But when nothing perceptible persists in its identity as a substratum and the thing changes as a whole (. . .) such an occurrence is no longer an alteration. It is a coming-to-be of one substance and a passing-away of another (319 b 15-8).

Here are presented four conditions for a change's being an alteration: (a) that there is a substratum, (b) that that substratum persists through the change; (c) that that substratum is perceptible, (d) the perceptible thing persists in its identity as a substratum. Thus the persistence of something of which things that change are predicated is not adequate alone. Substantial change, interpreted as involving prime matter, does not meet all the conditions. In meets (a) and (b); it is probably better to say that it does not meet (c), because if the substratum is prime matter it is not perceptible in itself, for prime matter is not perceptible in itself. However, someone might argue that it is perceptible *qua* the determinate thing in which it is realized, so there is some ground for regarding (c) as ambiguous. However, condition (d) is clearly not met, for, in substantial change, that which is perceptible prior to the change and in which the prime matter is realized does not persist at all, and therefore does not persist as the substratum – the substratum which persists is the prime matter itself. The case of persisting properties is raised because they do persist in their perceptible identity, unlike prime matter. But they fail to qualify a change as an alteration because they are not the substratum of a change, for the things that come-to-be and pass-away are not predicated of them: they do not constitute something "perceptible which persists in its identity as a substratum."

(b) *Met.* H 1042 a 32 - b 3

In this passage what underlies substantial change is referred to as a 'this thing here', apparently not a way of referring to prime matter, but to some specific thing – and as 'now underlying as a lack', which presumably may mean by its absence. Thus the whole thing seems to refer to the substance from which something comes to be and which itself disappears. But this interpretation does not fit the text, for if

[2] This and subsequent passages quoted in translation are from the Oxford translation by H. H. Joachim.

the matter which underlies substantial change is the substance to which the change occurs, then what underlies substantial change is the same sort of thing as what underlies alteration, for there again the matter is the substance to which the change occurs. However, Aristotle says that the matter of alteration can be possessed without possessing that of substantial change (1042 b 5-6) thereby implying that these matters are not identical. Furthermore, the passage can be interpreted in a way consistent with prime matter: for prime matter is the matter which underlies as a this thing here, e.g. it underlies as (constituting) a seed or an element; and then it does underlie (and remain) as the lack of that thing – i.e. as something else: or perhaps (as Aristotle does not appear to have the elements particularly in mind, but more normal substances) as no particular type of thing; when a substance is corrupted its matter may be just dissipated into various different substances.

II. *Arguments against the thesis that underlying does not imply remaining*

There are three passages which tell strongly against Charlton's distinction. They are *De Gen.* I 4, 320 a 2-6, *Physics* I 9, 192 a 3 - b 35, and *De Gen.* II 1, 329 a 30-33.

(a) 320 a 2-6

> "Matter, in the proper sense of the term, is to be identified with the substratum which is receptive of coming-to-be and passing-away; but the substratum of the remaining kinds of change is also, in a certain sense, "matter", because all these substrata are receptive of contrarieties of some kind."

If one takes this passage to be referring to substantial change in general, then, combined with Charlton's account of 'underlying', it gives a strange definition of 'matter'. For Charlton says that what underlies is *that from which*, and *that from which* is the initial substance. It would seem, then, that Aristotle is saying that 'matter, properly so-called' is a substantial individual. Perhaps this is conceivable if a definition of 'matter in change' is all that is intended, but it is very implausible as an account of matter in general. On the other hand, the passage well fits a traditional interpretation, according to which what underlies remains. For then we can take 'matter properly so-called' to be that which is common to the 'before and after' of generation and corruption – i.e. something less than an individual substance. Hence

the general contrast between matter and actualized substance is preserved. It is also clear on this interpretation why the substratum of alteration is matter only 'in a certain sense', for the subjects of alterations are substances, and therefore not paradigms of matter. Charlton's interpretation entirely loses the contrast between matter and substance.

As following Charlton's interpretation, in taking the passage as being about substantial change in general, has these undesirable consequences, one might try to take it as being primarily about elemental change. There is some slight textual ground for doing this, for Aristotle appears to regard a change as more 'substantial' the nearer one of the termini is to being imperceptible, as is air. (319 b 18-21). On such an interpretation it might seem reasonable to take that reality from which the new entity comes-to-be as the paradigm of matter, for that reality is an element. However, in such change one element changes into another, and if it is reasonable to regard the initial element as a paradigm of matter because it is an element, then it is equally reasonable to regard the generated element as matter. If this were so, then the situation would be most simply expressed by saying that 'matter, properly so-called' was the elements collectively; there would be no point in picking out what underlay, if that were just the element *from which*.

It seems, therefore, that it is implausible to take this passage as asserting that matter is the *terminus a quo* of substantial change in general, or elemental change in particular. As the passage clearly asserts that 'matter, properly so-called' is what underlies substantial change, it seems that what underlies is not a *terminus a quo*. Presumably, then, what underlies includes more than *that from which* – i.e. includes something which remains. As the passage is shown (by the examples used earlier in the chapter) to be intended to cover at least elemental change, it would seem that something of what underlies such change remains through it.

(b) *Physics* I,9

Aristotle criticises the Platonists for failing to realize that what underlies is, though only one in number, two 'in possibility', (192 a 1-3). What underlies must be regarded as both matter and a privation: the privation is what is destroyed by the new form; the matter, on the other hand "remains, joint cause with the form of the things which come to be, as it were a mother." (192 a 13). Here we have a clear case

of the matter – a part of what underlies (indeed the most real part (192 a 4-6)) – being said to remain, in what looks like a general account of all change. Charlton's answer to this apparent counter-example to his thesis is, in my opinion, feeble. He says:

> "Aristotle is discussing changes generally . . . and taking as his main examples alterations; elements are not mentioned . . . and their transformation will not have been to the fore in his mind."

This is a puzzling remark: chapter 9 contains no examples at all and chapter 8 is mainly, if not wholly, about substantial change. Furthermore, in the second half of chapter 9, 192 a 25 - b 7, he argues strongly for the view that matter cannot pass away or come to be.

> "And in one way it (what underlies) passes away and comes to be, and in another not. Considered as that in which, it does itself pass away for that which passes away the lack is in it. Considered, however, as possible, it does not itself pass away, but can neither be brought to be nor destroyed. If it came to be, there would have to be something underlying, out of which, as a constituent, it came to be; that however, is the material nature itself, for by matter I mean the primary underlying thing in each case out of which as a constituent and not by virtue of concurrence something comes to be; so it would have to be before it had come to be. And if it passed away this is what it would ultimately arrive at, so it would have passed away before it had passed away."

Of this Charlton says the following: "We may notice that Aristotle's argument establishes only that that which is X in possibility is not produced when X is produced or destroyed when X is destroyed. When X is one of the four elements, that which is X in possibility may pass away when X comes to be, and come to be when X passes away. Thus water is air in possibility . . . and Aristotle would probably say that it ceases to be when it changes into air, and comes to be when air changes back into it. If this is his view, it will not be true without qualification that the material factor is neither brought to be nor destroyed." (pp. 83-4)

I do not think that this can be the correct interpretation. Aristotle says that what underlies, considered as the privation (or the vehicle for privation) passes away, but considered as the matter of the change, or the possibility of the new entity, it does not. Clearly the privation passes away when the new entity comes to be, thus the first part (a 25-7) refers to what happens to the privation when that which the

substratum underlies *comes to be*; and the second part (a 27-b 7) asserts that the possibility or matter does not pass away. But Charlton would have us believe that the second refers not to what happens when the object in question comes to be, but what happens when it passes away, for he says that that which is X in possibility is not destroyed *when* X *is destroyed*. Thus he says that when Aristotle says one thing happens to one part of the substratum and another to the other, he is referring to what happens to each part, not under the same circumstances, but under opposite circumstances. Even following his own interpretation Charlton has to make the proviso that Aristotle didn't mean that it never passed away, he was just not thinking about elemental change.

It is also worth considering Aristotle's explanation of why it does not come to be nor pass away (a 28-33). I do not see how it can be true that he here has in mind only alteration in substances. In such cases the matter of the change is the substance itself. It cannot be said of this that if it passed away it would ultimately arrive at itself: the potentially musical man, who is the matter for change in respect of musicality, can pass away and leave something less than a man. Indeed the only matter which could not pass away into some lower form would be the lowest form. This puts Charlton into a dilemma the horns of which meet at a point. For if we follow Charlton in taking the elements to be the lowest form of matter, it would follow that if Aristotle is talking in this paragraph of the lowest form of matter he is talking of the elements. But we have seen that Charlton's interpretation involves taking Aristotle as dealing only with matter considered as the matter of alteration, and that therefore he must not have the elements in mind: Charlton has to insist that Aristotle's interest here excludes the elements, for if he does have the elements in mind, then his statement that part of what underlies also remains must apply to elemental change; in which case the elements are not the lowest form of matter, but that which survives elemental change is lower. Thus if 192 a 25 f. refer to the lowest form of matter, then they do not refer to the elements, but to what underlies them. Thus if Charlton takes hold of one horn of the dilemma and interprets 192 a 25 f. as referring to the elements, it follows that Aristotle is not referring to the elements, but to something lower. The other horn of the dilemma has the advantage of not being self-refuting: he can accept from the start that 192 a 25 f. refer to the matter which is more basic than the elements.

(c) 329 a 30-33

> "We must reckon as an 'originative source' and as 'primary' the matter which underlies, though it is inseparable from, the contrary qualities: for 'the hot' is not matter for 'the cold', nor 'the cold' for 'the hot', but the substratum is matter for them both."

The substratum can be matter for both contrarieties only if it remains: if it does not remain it can be the matter of both contrarieties only in different senses of the term 'matter.' For example, if some water becomes air, then, according to Charlton, the water underlies the change. It can be the matter *from which* the air comes and perhaps the matter from which the new contrariety, dryness, comes. But the sense in which it is the matter for the wetness which the dryness replaces will be a different sense of 'matter'. It will not be that *from which* the wetness came – the matter of change – for wetness did not come from the water, but from whatever the water came from: the water will be what underlies the wetness during the course of its existence, not what it came from. What underlies the change – the water – will not be matter for both contrarieties in the same sense. On the other hand, if there is some underlying matter which remains it will be the matter for both in the same sense, for it will be the matter for each during the course of its existence, rather than just at its origin. It is worth noticing that the view that underlying does not imply remaining is peculiar to Charlton, and plays no part in King's argument, who affirms that Aristotle stands by the 'dogma' that something always remains even in the case of elemental change (J.H.I. 1956, p. 378). What remains is one of the contrarieties, for an element can only be transformed into one of the two elements which differ from it in respect of only one contrariety. The fact that one contrariety always remains seems such an obvious fact that it may make one wonder why Charlton feels it necessary to deny that anything does remain in order to avoid the theory that prime matter remains. It is as if he assumes that if anything remains it must be prime matter. Perhaps Charlton's answer to this would be that when one substance with the property F replaces another with the property F this is not really a case of F-ness remaining, for two instances of the same property in different objects have to be regarded as different things, not the same thing. If Charlton were thinking in this way it might explain why he fails to regard 319 b 21-31 as dealing with a genuine case of persistence. Whatever are the general merits of saying that so-called persistence of a property from one object to another is

not really a case of persistence of a substratum, it is not plausible for the particular case of the contrarieties in elements. It will be argued below that if the elements consist of no other aspect than the contrarieties, then these have to be regarded not as attributes, but as substantive in their own right – they are, alone, what make up the elements. We shall see that King denies that they are attributes. But if they are substantive, then I can imagine no good reason for holding that they are entities of the wrong sort to be regarded as substrate in the sense of being able to be subjects of predication.

III. *Interpretation of certain passages, preparatory to re-interpretation of* 329 *a* 24-35

Preparatory to re-interpreting the principal text in *De Gen.* II 1, Charlton considers three other passages in which he takes Aristotle to be attacking the notion of prime matter. These are *De Gen.* II 1, 329 a 5-23, and II 5, 332 a 6-13, 20-6, and *De Caelo* III 6, 305 a 14-33. It is not his interpretation of these passages that I want to challenge, but his belief that they are relevant. In all three Aristotle is attacking conceptions of prime matter which make it either corporeal, separable or geometrical. As it is traditionally conceived of, prime matter is none of these things, and, therefore, attacks on such conceptions are irrelevant when discussing the traditional notion. Charlton states this challenge to the relevance of these texts, and replies to it by saying that prime matter, in all the forms which Aristotle countenanced it, including as a pure potentiality, is separable, and that therefore his attacks on such a separable matter are relevant. He quotes (p. 135) 317 b 28-9 in support of this view.

> ". . . if it possesses none of these determinations actually, but all of them only potentially, the result is first that a being, which is not a determinate being, is capable of separate existence . . ."

This passage appears to contain the assertion that something which is pure potentiality is separable.

On the other hand a different view of the primary matter is found at 329 a 30-32.

> "We must reckon as an originative source and as primary the matter which underlies, though it is inseparable from, the contrary qualities."

If we are to avoid concluding that Aristotle is contradicting himself, we must either take the second passage as not being about prime matter,

but about, say, the elements, or we must argue that the first passage speaks only of a restricted and irrelevant type of prime matter. Those who do not see a belief in prime matter in Aristotle take the former path, but a closer look at the context from which the first passage comes shows that it is not concerned with prime matter in the relevant sense. It is true that in this case Aristotle is considering a pure potentiality and not a matter which is either corporeal or mathematical; the fact that what is under consideration is a pure potentiality makes it seem as if it were prime matter as traditionally conceived. But this is not so. Aristotle is puzzling over how substantial creation and destruction are possible (317 b 18-21). One suggestion that he considers is that substances come to be from and pass away into a form of not-being which is a pure potentiality and possesses predicates from none of the categories. Thus, according to this suggestion, the potential exists as such, and only as such, both before and after the existence of a substance: the substance is, so to speak, an island of actuality in a sea of mere potentiality. This is the notion of the separable potentiality that Aristotle is attacking. That this is so is shown by the way the passage continues, 317 b 29-31:

> "(the result is first . . .) and in addition that coming to be proceeds out of nothing pre-existing – a thesis which, more than any other, pre-occupied and alarmed the earliest philosophers."

This is not the same as the pure potentiality which underlies substantial change, being first the substratum of one substance, then that of another: this latter is the matter to which 329 a 30-3 refers, and which cannot exist separately from some substance. That substances come from other substances is first countenanced at 318 a 26-7 and is endorsed in the following paragraphs: this option is meant as an alternative to the theory that substances come to be from some separable potentiality, though there is no reason to take it as counting against the potentiality invoked precisely to explain how one element or substance can come to be from another. Indeed, the discussion of how one element can become another which starts at 318 a 25, culminates in a passage which asserts that there is a matter (and therefore a potentiality) which underlies the elements and their contrarieties.

> "For that which underlies them, whatever its nature may be *qua* underlying them, is the same; but its actual being is not the same" (319 b 3-4).

This is the matter, it would seem, which is referred to at 329 a 30-3.

I conclude that none of the passages that Charlton takes as showing that 329 a 24-35 cannot be about prime matter has any tendency to show that conclusion.

IV *The Interpretation of* 329 *a* 24-35

Joachim's translation of this passage leads one to take it to be implying the existence of, and discussing the nature of, prime matter.

a 24 'Our own doctrine is that although there is a matter of the perceptible bodies (a matter out of which the so-called elements come-to-be), it has no separate existence, but is always bound up with a contrariety. A more precise account of this presupposition has been given in another work. We must, however, give a detailed explanation of the primary bodies as well, since they
a 30 too are derived from the matter. We must reckon as 'originative source' and as 'primary' the matter which underlies, though it is inseparable from, the contrary qualities: for 'the hot' is not matter for 'the cold', nor 'the cold' for 'the hot', but the
a 33 substratum is matter for them both. We therefore have to recognise three 'primative sources': firstly, that which is potentially perceptible body, secondly, the contrarieties (I mean e.g. heat and cold) and thirdly, Fire, Water, and the like.'

Charlton paraphrases the first three lines of this passage as follows:

> "We agree with Plato and others that nothing comes to be out of nothing. There is always something which underlies, in the sense indicated in Physics I 7, something out of which the new element, or whatever it is, comes to be. This, however, is not something separate, but always characterized by hot or cold, wet or dry" (p. 135).

This paraphrase contains two important interpretative innovations. The first is reference to the Charltonian sense of 'underlie'. The second is that what is not separate, but characterized by contrarieties, is the elements themselves, thus the elements are the most basic form of matter, and are the matter for elemental change. (This is not clear from the paraphrase alone, but Charlton explicitly glosses it this way in his next sentence). The first of these points has already been discussed and rejected, and I shall therefore consider the second. The view that the elements are the most basic form of matter is common to both Charlton and King. To show that it is inconsistent with the text is

therefore to refute them both. There are three arguments against this view of the elements, each based on a different part of the passage.

(a) Joachim's translation of a 24 is '. . . there is a matter of the perceptible bodies', but the Greek word which is translated by the indefinite article is τινα which is more precise and emphatic than the indefinite article. A fair representation of its force here would be '. . . there is some particular matter of the perceptible bodies.' This is incompatible with Charlton's paraphrase, 'There is always something which underlies' which must mean 'something or other', for there is not, according to him, any one thing which underlies, for various elements can come to be from various elements. And if we take in the same way 'the matter' described, at a 30, as that from which the elements are derived as being a reference to the particular matter of a 24, then this cannot be a reference to the elements from which other elements come to be, for they are not one thing, as each element can come to be from either of two others.

King has a slightly different interpretation from Charlton. He allows for the force of τινα by saying:

> 'Generically, the four elements are the first matter, they are "as one" the underlying, common matter of all composite body". (J.H.I. 1956 p. 384).

This would be acceptable if the first matter was taken as the matter for all bodies composed from the elements, but not for the elements themselves. It is strange to say that they are collectively the matter for each one of them. The above quotation fails to explain how the elements are matter for each other, as King denies that the elements are composite (p. 377). This naturally leads on to the second argument.

(b) The second argument is based principally on 329 a 28-30. Joachim takes 'primary bodies' to refer to the elements and Charlton does not offer a re-interpretation of this phrase. But if this is so, and if the elements are the matter which underlies elemental change, why should Aristotle say that 'they (i.e. the elements) too are similarly derived from the matter'? This would be a misleading and clumsy way of saying that they are derived from themselves – or, rather, from each other. We can see from the last sentence of his paraphrase and the gloss that he gives it that Charlton takes saying that the matter cannot exist separable from the contrarieties to be a way of saying that the matter is the elements; and, indeed, if Aristotle is not countenancing prime matter here, having refuted the notion in previous passages (including 329 a 5-23 immediately prior to our passage), it is difficult

to see how else to take this expression. But this makes nonsense of a 24 to a 32, for it means that in those lines Aristotle says the following things. He says that there is a matter of all perceptible things (a 24) and that this is the elements (a 26), and then emphasises that the elements, too, are made of this matter (a 29-30). He then asserts again that the matter is the elements (a 31-2). What could possibly be the point of the third of these assertions, especially in the context of the second and fourth? The third makes sense only if the second and fourth are misinterpretations, and reference to the impossibility of the matter's existence separate from the contrarieties is not a way of saying that it is the elements, but rather takes it for granted that the matter is not the elements, but something more basic.

King makes two attempts to avoid the strangeness of saying that the elements are their own matter. First he challenges the Oxford translation. He says that 'out of which the so-called elements . . .' (a 25) can be read as referring either to the matter or to the contrarieties, and that it is correct to take it as referring to the latter, though Joachim links it with the former by adding the words 'the matter (out of which . . .)' (p. 381). It is true that the text is ambiguous here, but there is not such ambiguity in a 29-30, which King himself translates:

> 'And yet, since also in a similar way the first bodies (presumably the elements) are from the matter . . .'

Here he affirms, by his own parentheses, what he had previously sought to avoid by challenging the translation, namely that the text says that the elements are 'from' the matter. Seeing the failure of his reinterpretation of a 24-6 to get him away from the problem of the matter of the elements, King tries another route. He paraphrases Aristotle as follows.

> 'Of course it will turn out that this generic underlying matter is really differentiated into the ideal elements themselves, and that it is by reciprocal generation that they are in reality generated 'from the matter'. And now (Aristotle) continues, we must study the elements and reckon them as primary, as the substratum, in effect, of the contrarieties' (p. 383).

It appears, therefore, that King does not find it too strange a use of the term 'matter' to say that As and Bs have the same matter if As are made of Bs and Bs are made of nothing more basic than themselves, though they are generated from each other. I would think that good reasons are necessary before taking such an interpretation. But the

paraphrase does avoid the manifest absurdity of making Aristotle say that the perceptible bodies are made of matter, which is the elements, which are themselves made of the same matter. He avoids this by saying '... it will turn out that this generic element ...', which suggests that it is not here *asserted*, but is later to be shown, that the matter of the elements is the elements themselves. To avoid finding in this passage the assertion that the elements are the matter of all perceptible bodies, including themselves, it is necessary to disagree with my claim made above that saying that something is inseparable from the contrarieties must be, for Charlton and King, a way of saying that something is an element, and that therefore, it cannot 'turn out' that such a thing is an element. But if, as they both claim, all conceptions of matter corporeal or incorporeal prior to the elements have been refuted in the earlier parts of the chapter, and elsewhere, and that anything inseparable from the contrarieties must be a body (as King claims pp. 380-1) then Aristotle has just proved that anything inseparable from the contraries must be an element (or made from elements): there is therefore no scope for it to 'turn out' that the inseparable matter is the elements, but this is actually a way of referring to the elements.

I shall deal later with the claim, found at the end of King's paraphrase, that the elements are the substratum for the contrarieties.

A further point can be made on the basis of a 28-30. Aristotle gives as his reason for saying a detailed account of the elements has to be given, that they are made of the same matter as other perceptible bodies. The elements are relevant because of their connection with the matter of perceptible bodies in general, this latter being the topic of interest. But if it has already been shown that they are the matter of all perceptible bodies, then a detailed account of them is required because they are in fact the subject of the discussion: their relevance does not rest on their relation to anything else.

(c) Charlton should have attempted a paraphrase of a 30-3. Here we are told that the substratum is matter for both the contrarieties of a pair, but an element would not be described as the matter of the contrarieties it bears. We have seen in (b) above, that King thinks that an element can be so described. I cannot find any textual evidence that contradicts this, but it is *a priori* unreasonable. The element is the complete entity, and the contrarieties are its essential characteristics. Given the way that Aristotle uses the concepts 'matter' and 'individual' I do not think he would ever describe an individual as the

matter for its defining characteristics. For example, the bronze is matter for the sphere, but the bronze sphere is not matter for 'sphericality' or 'the sphere.' Furthermore, it is difficult to see how anything could be the matter for the contrarieties if they are the only aspect which an element posseses. Thus when the bronze is matter for the sphere, the bronze sphere has two aspects which are separable in thought, namely bronze and sphericality. If we allow that elements contain prime matter, the same will be true of them, for they will be separable in thought into the contrarieties and the prime matter. But if there is no prime matter, then there is no matter for the contrarieties. The absence of a further matter on his own theory pushes King into substantiating the contrarieties.

> '... the contrarieties ... are not some anachronistic secondary qualities, or even mere "attributes" of matter, but they are, as he insists, causes and forces, indeed, the very "stuff and guts" of the elements themselves. In fact it is simply by the coupling, mingling and re-coupling of the contrarieties that the elements are reciprocally generated.' (p. 378)

To hypostasize the contrarieties in this way seems reasonable and probably even necessary if they are to be regarded as the sole factors which constitute an element. If the contrarieties are regarded as being attributes, then an element will be nothing more than a collection of two attributes inhering in nothing. This dubious conception is avoided if they are regarded as real 'forces' and the 'stuff and guts' of the elements. On such a theory it is difficult to see why it should not be possible for the contrarieties to exist singly – why they should never be considered as candidates for being the elements, instead of earth, fire, air and water, which they make up. Such a substantial view of the contrarieties makes it especially strange to regard the elements they constitute as their matter. This would be like regarding the house as matter for the bricks. Even if we consider the element as substratum in the sense of being that from which the contrarieties come when they form new combinations, this is no better than regarding a house which is being demolished as the matter of the bricks which are taken from it to be built into a new house.

V. *Met.* Z 3. 1028 b 33-1029 a 33

This passage does not present an argument for prime matter, though it may show that Aristotle believed in prime matter. Whether it

does show this depends on two things. These are whether: 1) one takes the stripping of predicates, leaving a bare substratum, to be a process which Aristotle believes is legitimate, or one which he believes is illegitimate. 2) whether one thinks that the bare potentiality uncovered by the stripping of predicates is the same thing as prime matter. Charlton attacks the relevance of the passage on the former ground, King on the latter.

1) Charlton takes the lines in which this occurs (a 10-26) as a statement of an opponent's point of view. I can see nothing which makes plausible the claim that a change of voice occurs in a 10. This makes these lines a reductio which Charlton states:

> "If we say that bronze has more claim to the title of reality than what it constitutes, we shall be forced to posit some completely indeterminate matter." (p. 138)

Part of this may be half true, but as it stands it seems to me to be a very implausible interpretation. I would make a point about each half of the conditional in which Charlton expresses his paraphrase. 1. The first half should surely read 'If we say that the bronze is a subject of predication . . .', for what leads to the conclusion is taking the predicates as applying to the bronze. It is plain that Aristotle does not regard as equivalent taking something to be the principal reality and taking something to be a subject of predication, for he does regard matter as a proper subject of predication (see, e.g. 1049 a 34-6) though he does not regard matter as the principal reality. 2. The unfortunate conclusion to which Aristotle is pushed and which he wishes to reject is not that there exists a completely indeterminate matter, but that this matter is substance proper. (a 9-10, a 27-8). Rejection of this may involve him in rejection of this method of deriving prime matter. However, we shall see that this depends on one's interpretation of the passage. Charlton does not attempt to go to the heart of the problem posed in this chapter. The difficulties are created neither by the apparent possibility of stripping, nor by supposing, for purposes of argument, that matter be considered as substance (top p. 138 Charlton suggests that this is the point of the argument). The difficulties are caused by the presenting of four definitions, all of which appear to be acceptable Aristotelian *dicta*, but which generate an unacceptable conclusion. These are:

1) The substratum is that of which everything else is predicated, and is not itself predicated of anything (1028 b 35)

2) Substratum is thought to be substance in the truest sense (1029 a 1-2)
3) Matter, in one sense, is substratum (1029 a 3)
4) Substance is that which is not predicated of anything lower, but of which all things are predicated (1029 a 6-7).

Propositions 1) and 4) together imply 2), and propositions 2) and 3) together give the conclusion that matter is substance. This is a conclusion that Aristotle does not want. It should be noted that it becomes clearer why he does not want it if we allow the stripping of predicates passage to be from his mouth, not from an opponent's; for if matter can be pared down to bare potentiality, rather than just to hunks of e.g. bronze, then its inadequacy as substance is plain. However, to avoid the conclusion he must dispute a premise. I can see two plausible alterations that he could make. The argument from 2) and 3) is made possible by the middle term 'substratum'. 1029 a 2 says that matter 'in a sense' is the substratum: perhaps this is not the same sense of 'substratum' as that in premise 1) and 2): thus matter is not the substratum in the sense of being that to which predicates apply. One can then take the stripping passage as showing the consequence of taking matter as the substratum in this sense. This interpretation of the problem is not very different from Charlton's but it does not fit with 1049 a 34-6. There is another interpretation which fits the text better. One might think that the premises which required alteration were 2) and 4); the definition of substance as that substratum which is not predicated of anything, but of which all things are predicated. There are good textual grounds for thinking that these are the premises that Aristotle thought inadequate.

> "We have now outlined the nature of substance, showing that it is that which is not predicated of a substratum, but of which all else is predicated. But we must not merely state the matter thus; for this is not enough. The statement itself is obscure, and further, on this view, matter becomes substance." (1029 a 7-10).

The suggestion here is that the definition of substance as that which bears predicates is an inadequate definition – this criterion alone will not suffice; for it also allows in matter, for things are said of matter. The stripping passage then shows how this definition comes to let in bare matter, and in doing so prepares the way for the statement of the further necessary criteria by showing what is missing from matter alone which prevents it from being a substance. Thus the argument runs that if we take being the subject of predication as the sole criterion

for substantiality, we get the conclusion that matter is substance, and from this we get a substance that is 'neither a particular thing, nor a particular quantity, nor otherwise positively characterized.' (a 24-5). This shows what is missing: "for separability and 'thisness' are thought to belong chiefly to substance." (a 28-9). These are criteria which must be added to being the subject of predication to give an adequate definition of substance: if premise 4) is amended accordingly the argument that matter is substance does not go through. According to this interpretation it is important that Aristotle should be speaking in *propria persona* in the stripping passage and this does show that he believed in prime matter.

It is natural to connect this point with our interpretation of 319 b 10f, which was discussed in section one. In that passage Aristotle says that a change is an alteration only if that to which the change occurs persists through the change as the same perceptible object. As a change is an alteration when what persists through it is a substance, Aristotle is here saying that persistent identity as a perceptible object is what distinguishes substances from other substrata. This condition of persistent perceptible identity sounds quite similar to those of 'thisness' and 'separability' presented in Z 3.

2) King's interpretation of Z 3 is essentially the same as that presented above; namely that the argument is meant to show that being a subject of predication is not a sufficient condition for something's being a substance. He, therefore, argues that Aristotle accepts the process of stripping away predicates. But he does not agree that the potentiality is prime matter (see p. 388). He claims that the traditional interpretation arises from a confusion.

> 'This confusion between the logical analysis of the concept of matter and a conception of the actual physical analysis of bodies into their matter, lies at the basis of almost every exposition of the *prima materia* theory.' (p. 387)

The strongest argument in favour of this dichotomy is that Aristotle makes no attempt to link the bare substratum of Z 3 with the matter of 329 a 24 f: there is no explicit suggestion that they are connected. Having said this, I can see nothing more in favour of King's view, and there are factors which tell against it. The plausibility of the dichotomy rests, to a considerable extent, on what one thinks of the other passages which are supposed to contain reference to prime matter. If one believes, on these other grounds, that Aristotle accepts prime matter, then the suggestion that there are two types of pure potenti-

ality (how could they differ?) may seem strange: on the other hand, if one rejects the other passages, then perhaps one will feel that the interests of Z 3 are so removed from elemental change, that the bare potentiality suggested there has nothing to do with change.

However, there is good reason for rejecting the dichotomy. One might try to argue that Aristotle had no clear conception of the logical-empirical dichotomy, and that his basic concepts of form, matter and substance are meant to operate univocally in contexts which we would distinguish as conceptual and empirical. But this raises issues too large for me to discuss here. Instead I want to deny that a notion of purely logical potentiality will fit the requirements of Z 3.

If I consider an object, and then, in thought strip all its properties from it, what is it that is potentially all the things that I have thought away? *Ex hypothesi,* no answer of the form 'the F' or 'that F' will do where 'F' denotes some determinate nature, for these have all been taken away. It is true that the particular place in space and time which the object occupies is potentially qualified by the properties that I have thought away, but then so is any other location: it is logically possible that any place might be occupied by an object of the relevant type, and no good sense in which that particular place especially should be regarded as matter or potential for that type of object. As far as I can see there are just two candidates for being identical with the logical possibility of the object. One is the place, the other is some wholly indeterminate stuff – i.e. a prime matter. We have seen that the former is too broad, allowing all places to be the matter for such a type of object equally, not merely that in which the object is actually to be found. But if we think that there is an aspect of the object which is its bare materiality or 'stuffness', we can think of this as being present in the object, at the place where the object is, but not at places where there is nothing.

Conclusion

I have discussed the issues that I mentioned at the beginning of the paper. It seems that Aristotle does believe that some aspect of what underlies must remain: that the passages which seem to show that he rejects any notion of prime matter do not show this: that 329 a 24-35 is not interpretable consistently with the doctrine that the elements are the most primitive form of matter, and that, therefore, in view of the rejection of other conceptions in the immediately previous passage,

this passage must be taken as involving reference to prime matter: and that *Met* Z 3 does show Aristotle referring approvingly to prime matter.

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